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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,415	02/14/2002	Glenn Noronha	G&C 130.30-US-U2	7551
22462	7590	11/17/2004		
GATES & COOPER LLP HOWARD HUGHES CENTER 6701 CENTER DRIVE WEST, SUITE 1050 LOS ANGELES, CA 90045			EXAMINER CHEUNG, WILLIAM K	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,415

Applicant(s)

NORONHA ET AL.

Examiner

William K Cheung

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 29-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-23, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 10-12 and 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 121609, 021903.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

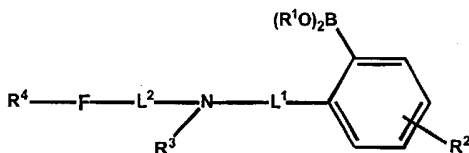
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 13-23, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Antwerp et al. (US 6,002,954).

The invention of claims 1-9, 13-23, 27-28 relates to a polymer composition comprising a fluorescent boronic acid of the general formula:



wherein:

F is a fluorophore;

N is a nitrogen atom;

B is a boron atom;

R¹ is selected from the functional group consisting of hydrogen, aliphatic and aromatic groups, wherein the functional group (R¹O)₂B is capable of binding glucose; R², R³ and R⁴ are optional and independent hydrogen, aliphatic or aromatic groups, further functionalized aliphatic or aromatic groups of groups that are capable of forming a covalent linkage to the polymer matrix; L¹ and L² are optional linking groups having from zero to four atoms selected from the group consisting of nitrogen, carbon, oxygen, sulfur and phosphorous; and wherein the polymer composition further includes a reference fluorophore; and wherein the fluorescent boronic acid and the reference fluorophore are covalently coupled to the polymer matrix after polymerization; and further wherein: the polymer composition including the covalently coupled reference fluorophore and the covalently coupled fluorescent boronic acid is soluble in an aqueous environment; and the fluorescence of the polymer composition including the covalently coupled reference fluorophore and the covalently coupled fluorescent boronic acid increases in the presence of bound glucose.

Van Antwerp et al. (figure 10, 12-14; col. 24, claims 1-6) disclose a system comprising a polymer matrix which comprises a compound that is substantially identical to the one as claimed. Further, Van Antwerp et al. in claim 6 clearly indicate that the disclosed composition further comprising a fluorophore. Regarding the type of polymer matrix employed for the disclosed system, Van Antwerp et al. (col. 10, line 21 to col. 15,

Art Unit: 1713

line 55) disclose that the matrix is covalently bonded to the compound, and that the matrix is a ethylene propylene block copolymers. Van Antwerp et al. (col. 9, line 44-50) disclose that the dye used in formula (I) is an oxazine (e.g. Nile blue). Regarding the claimed solubility and crosslinked related features, in view of the substantially identical composition of the polymer composition being claimed and disclosed in Van Antwerp et al., the examiner has a reasonable basis to believe that the claimed solubility and crosslinked related features are inherently possessed in Van Antwerp et al. Van Antwerp et al. contain all the limitations of claims 1-9, 13-23, 27-28. Claims 1-9, 13-23, 27-28 are anticipated.

Allowable Subject Matter

3. Claims 10-12, 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art Van Antwerp et al. is silent on a polymer composition comprising polystyrene or polyvinylalcohol.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung

Primary Examiner

November 13, 2004

**WILLIAM K. CHEUNG
PRIMARY EXAMINER**